

Amendment and Response

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For: FLUID HANDLING DEVICES WITH DIAMOND-LIKE FILMS

C1 about 45 atomic percent oxygen.

- C2
- 31 (Amended) A method of manufacturing a fluid handling device comprising a microfluidic article comprising a microfluidic handling architecture comprising a fluid handling surface wherein at least a portion of the fluid handling surface includes a hydrophilic diamond-like film disposed thereon, the method comprising manufacturing a hydrophilic diamond-like film by a method comprising treating a diamond-like film in an oxygen-containing plasma, wherein the film comprises diamond-like glass comprising a dense random covalent system comprising on a hydrogen-free basis at least about 30 atomic percent carbon, at least about 25 atomic percent silicon, and less than or equal to about 45 atomic percent oxygen, and further wherein the film exhibits substantially no fluorescence.
32. (Amended) A method of manufacturing a fluid handling device comprising a microfluidic article comprising a microfluidic handling architecture comprising a fluid handling surface wherein at least a portion of the fluid handling surface includes a hydrophilic diamond-like film disposed thereon, the method comprising manufacturing a hydrophilic diamond-like film by a method comprising treating a diamond-like film in an oxygen-containing plasma, wherein the film comprises diamond-like glass comprising a dense random covalent system comprising on a hydrogen-free basis at least about 30 atomic percent carbon, at least about 25 atomic percent silicon, and less than or equal to about 45 atomic percent oxygen, and further wherein the film is at least 50 percent transmissive to radiation at one or more wavelengths from about 180 to about 800 nanometers.